

# MONTHLY WEATHER REVIEW,

## APRIL, 1874.

---

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

### INTRODUCTORY.

The weather of April has been distinguished by the prevalence of extraordinary rainfall throughout the Southern and Middle States, and equally unusual snows in New England and in Colorado. The courses pursued by the storms have, on the average, been much to the south of their tracks of previous years. The average barometric pressure is unusually high throughout the northern sections of the country. Vegetation is everywhere reported as from ten to twenty days behind its usual condition at the end of the month. Severe floods have been reported from all the tributaries of the Mississippi river, and the result has been that a disastrous overflow has been experienced throughout Mississippi, Louisiana and Arkansas.

### STORMS.

I. The history of this storm belongs chiefly to the month of March; it was central on the 1st of April in the South Atlantic States and disappeared during the day in the Atlantic Ocean.

II. The track of this storm is confined to the extreme northern limits and border of the region of our stations; it passed on the 3d of the month over the mouth of the St. Lawrence, after having produced a slight disturbance in the Lower Lake region.

III. This storm first became visible as a well developed depression in Indian Territory on the morning of the 4th, having apparently travelled northeastward from Texas; its course was in a straight line due northeastward over Lake Erie and the Gulf of St. Lawrence, which latter region was reached on the 6th. Very extensive rains uniformly prevailed over the Southern and Atlantic States and snow over the Lake region and Upper Mississippi valley. Dangerous winds prevailed over the Lower Lakes and Middle Atlantic coasts.

IV. This is first located in Texas, where it very possibly may have originated; it moved eastward into Alabama on the 9th, and thence northeastward to the Middle Atlantic coast on the 10th. Severe northerly gales followed in its rear in the Southwest; northeasterly gales preceded its approach to the Atlantic coast; it then passed northeastward at a short distance off the coasts of New England and Nova Scotia, and was east of Cape Sable on the 11th. This was the most generally severe storm of the month on the Atlantic coast, but was on the New Jersey coast perhaps exceeded by that of the 25th instant.

V. The fifth important storm of the month was confined to the extreme northeastern portion of the country. While an area of very high pressure was pressing southeastward over the Northwest and Upper Lake region, the storm in question moved southeast and then northeastward over the St. Lawrence and Canadian Provinces, its effects being most severely felt in New England on the 12th.

VI. The area of high barometer alluded to in the preceding paragraph separated the centres of storms No. V and VI. The latter disturbance apparently passed from the Pacific ocean eastward into the Northwestern Territories and the British Possessions on the 11th, and very quickly produced a rapid fall in the barometer throughout the Northwest, the intensity of the disturbance being increased by the influence of the high barometer over the Lake region. Southwesterly gales prevailed in the Missouri valley at midnight of the 11th, and over the Missouri and Upper Mississippi valleys on the 12th, with fresh southerly winds throughout the entire Southwest. The depression assumed the shape of a trough or extremely elongated ellipse on the morning of the 13th, but the southern extremity rapidly closing up, it became approximately circular by midnight of that date, at which time it was central in southern Wisconsin. Brisk and high southerly winds prevailed during the 13th and 14th successively over Lake Michigan and the Lower Lake region, while the storm-centre pursued a northeasterly course over Canada to the Gulf of St. Lawrence, where it was last observed on the 16th.

VII. This storm first appeared in Indian Territory on the morning of the 14th, its origin having apparently an intimate connection with the storm No. VI, which was at that time in the extreme Northwest. The track of No. VII presents an unusual appearance, in that it trends nearly southeastward and is finally lost in the Gulf of Mexico. It appears to have been broken up into several areas of low pressure, accompanied by numerous local thunder and hail storms throughout the Southern States. The severest winds are reported from the coast of Texas on the 16th and 17th.

VIII. It is not impossible but that this storm, which is first located at midnight of the 17th in the western portion of the Gulf of Mexico, may be in fact identical with No. VII., which latter, after having pursued its unusual course, may have returned upon the usual track of the storms visiting the western Gulf. The course pursued by No. VIII during the 18th was almost due northward into Indian Territory and thence northeastward over the Lower Lake region, over which it passed, on the 20th to Cape Breton, where it disappeared on the 22nd. Strong northeast winds and rain prevailed over the Lake region; easterly winds and heavy rain in the Atlantic States on the 18th, 19th and 20th.

IX. The extensive snows of the 20th, in Colorado and New Mexico, are our earliest indications of the disturbance that culminated on the 22nd in a well-defined storm-centre in Texas, which was by the 22nd central in Tennessee, and was followed by a severe "norther" on the western Gulf coast. The storm disappeared on the 23rd off Cape Hatteras, having been accompanied by very general rains in the Southern States.

X. While the preceding storm was passing eastward, No. X was advancing rapidly southeastward over Manitoba and Dakota, where it was central on the 24th. Considerable rain fell on that and the subsequent day over the Upper Lake region, when the storm turned northeastward and disappeared in Canada.

XI. The cold northerly winds over the Southwestern States on the 23d undoubtedly initiated the extensive precipitation that prevailed on the morning of the 24th through-

out the Northern Gulf coast, developing a well-marked barometric depression that had by midnight progressed northeastward into Alabama. By midnight of the 25th the storm was central in the immediate neighborhood of the coast of New Jersey, and severe easterly gales were then prevailing from that point to Nova Scotia, and continued to precede the advance of the storm throughout the following day. The last position given for this storm-centre was on the morning of the 27th, when it was off the coast of Cape Breton. While the storm was passing eastward from Tennessee on the 25th, there appears to have been formed a subsidiary depression, which passed north and then eastward, uniting with the main centre on the 26th.

XII. This storm appears to have originated in the mountains of Colorado and the neighboring Territories on the 25th and 26th; it was central in Kansas and Nebraska by midnight of the latter date; its advance eastward was, at first, comparatively slow in the presence of areas of high barometer then existing in the Upper Lake region and the South Atlantic States. Heavy rains prevailed on the night of the 27–28th in the Ohio and Tennessee valleys and snow on the Lower Lakes. The storm-centre moved nearly eastward to the Atlantic coast and then turned sharply to the northeast, passing over Maine on the 29th at midnight.

XIII. The history of this remarkable storm belongs especially to the month of May, during the first five days of which it slowly moved from the Northwest to Tennessee and thence to Cape Hatteras. The origin of this storm is to be found on the Pacific coast, as it evidently passed over Washington Territory on the 28th and 29th, and over Montana on the 30th.

## BAROMETRIC PRESSURE.

The distribution of barometric pressure for the month is shown by the isobaric lines on chart No. 2, and appears to have been unusually high over the northern sections of the country, with, however, only a very slight deficiency in the extreme southeast.

## TEMPERATURE OF THE AIR.

The distribution of temperature for the month is shown by the isothermal lines on the appropriate chart accompanying this text. These lines result from the study of observations reported by about two hundred of the volunteer observers in correspondence with this office, combined with the observations at the regular stations of the Signal Service. The principal feature of the month is the very general low average temperature. This is made specially apparent by collating, as follows, the reports from volunteer stations whose records run back over a long series of years:

In Maine	the average temperature has been the lowest recorded in 38 years.
In Vermont	" " " " " 24 "
In Massachusetts	" " " " " 34 "
In New York	" " " " " 25 "
In Pennsylvania	" " " " " 20 "
In New Jersey	" " " " " 9 "
In Connecticut	" " " " " 20 "
In Maryland	" " " " " 10 "
In Indiana	" " " " " 10 "
In Illinois	" " " " " 23 "
In Kansas	" " " " " 10 "